

REMARKS

Favorable reconsideration of the application is respectfully requested in light of the amendments and remarks herein.

Upon entry of this amendment, claims 1-15, 17-20, and 22-25 will be pending. By this amendment, claims 16 and 21 have been canceled; and claims 1, 8, 17, 19, and 22-24 have been amended. No new matter has been added.

§ 102 Rejection of Claims 1-6, 8-13, 15, 16, 21, 24, and 25

In Section 2 of the Office Action, the Examiner has rejected claims 1-6, 8-13, 15, 16, 21, 24, and 25 under 35 U.S.C. §102(e) as being anticipated by Kim (U.S. Patent 6,348,951). Claims 1 and 8 have been amended to address the rejection.

In the Background section of Kim, it is indicated that "when an image screen and a caption are displayed at the same time, the caption partially covers the image, and thus the hidden image cannot be seen. ... As a result, a part of the TV image screen cannot be seen." *Kim, column 1, lines 15-28.*

To address the above-described shortcomings of the conventional caption display device, Kim suggests providing "a caption display device for a digital TV enabling the users to adjust density of a caption window displayed on a screen for the digital TV." *Kim, column 1, lines 36-38.* This is accomplished by providing a digital TV including "video decoder unit 101 for decoding an inputted MPEG II transport stream, and separately outputting a user data for caption and an MPEG II video data; ... a video combining unit 106 for combining and outputting the MPEG II video data separated in the video decoder unit 101 ...; a video processing unit 107 for

processing and outputting a color blending according to the signal outputted from the video combining unit 106; ..." *Kim, column 2, line 58 to column 3, line 12 (emphasis added).*

Thus, Kim specifically teaches separating the image from the caption, recombining the image and the caption into a combined video signal, and processing the combined video signal to color blend the caption into the image to enable "the users to adjust density of a caption window displayed on a screen".

However, the steps of the image processing method of claim 1, as presented herein, are designed to overcome different shortcomings of a conventional television receiver outputting multi-format data broadcast image. Specifically, the steps of the image processing method of claim 1, as presented herein, are designed to overcome difficulties encountered by the conventional multi-format data broadcast image.

Thus, in the Background of the Specification, it was indicated that "when the still image 44 and the characters 45 are displayed together with the moving image 43 in the above-mentioned conventional multi-format data broadcast image 42 on a single screen, areas of the still image 44, the characters 45, and the moving image 43 cannot be distinguished from each other because the still image 44, the characters 45, and the moving image 43 are mixed with each other to form a single image. Therefore, the still image 44, the characters 45, and the moving image 43 cannot be processed independently of each other for higher image quality. This results in a disadvantage in that although the HD image 41 can be displayed with high quality, the still image 44 and the characters 45 are lowered in image quality." *Background of the Specification, page 1, line 23 to page 2, line 12.*

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Therefore, to overcome the above-described difficulties, the steps of the image processing method of claim 1, as presented herein, include:

“separating data in a plurality of formats from a broadcast video signal;

generating a plurality of layer image signals for data in said plurality of formats such that each of the plurality of image signals of data in each of the formats is superimposable on said data in the plurality of formats; and

adaptively processing said each layer image signal according to preset parameters to enable parameters of said each layer image signal to be individually optimally adjusted for viewing, said preset parameters including a sweep rate of said each layer image signal,

wherein the sweep rate is adjusted in accordance with a luminance difference.” (emphasis added)

Therefore, in claim 1, unlike in Kim, each layer image signal is adaptively processed according to optimal settings for that particular format before superimposing the processed layer signals. Specifically, each layer image signal is adaptively processed according to preset parameters to enable parameters of each layer image signal to be individually optimally adjusted for viewing. Further, the preset parameters include a sweep rate of each layer image signal, where the sweep rate is adjusted in accordance with a luminance difference.

Kim, however, combines the image and the caption, and processes the combined signal for optimal background color for the caption. Thus, Kim fails to teach or suggest separating data in a plurality of formats from a broadcast video signal, generating a plurality of layer image signals, adaptively processing each layer image signal according to preset parameters to enable parameters of each layer image signal (including a sweep rate) to be individually optimally adjusted for viewing, where the sweep rate of each layer image signal is adjusted in accordance with a luminance difference.

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Based on the foregoing discussion, it is submitted that claim 1 is allowable over Kim. Further, since independent claim 8 closely parallels, and includes substantially similar limitations as, independent claim 1, claim 8 should also be allowable over Kim. Since claims 2-6, 15, and 24 depend from claim 1, claims 2-6, 15, and 24 should also be allowable over Kim. Since claims 9-13 and 25 depend from claim 8, claims 9-13 and 8 should also be allowable over Kim. Claims 16 and 21 have been canceled.

Accordingly, it is submitted that the Examiner's rejection of claims 1-6, 8-13, 15, 16, 21, 24, and 25 based upon 35 U.S.C. §102(e) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

Double Patenting Objection of Claim 19

In Section 3 of the Office Action, the Examiner has objected to claim 19 for being a substantial duplicate of claim 18. Claim 19 has been amended to obviate the objection.

§ 103 Rejection of Claims 7, 14, and 17-20

In Section 5 of the Office Action, the Examiner has rejected claims 7, 14, and 17-20 under 35 U.S.C. §103(a) as being unpatentable over Kim.

Based on the foregoing discussion regarding claims 1 and 8, and since claims 7 and 17-20 depend from claim 1, and claim 14 depend from claim 8, claims 7, 14, and 17-20 should also be allowable over Kim.

Accordingly, it is submitted that the Examiner's rejection of claims 7, 14, and 17-20 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

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Conclusion

In view of the foregoing, entry of this amendment and allowance of this application with claims 1-15, 17-20, and 22-25 are respectfully solicited.

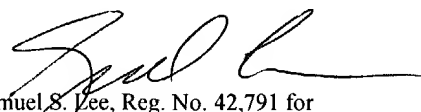
In regard to the claims amended herein and throughout the prosecution of this application, it is submitted that these claims, as originally presented, are patentably distinct over the prior art of record, and that these claims were in full compliance with the requirements of 35 U.S.C. §112. Changes that have been made to these claims were not made for the purpose of patentability within the meaning of 35 U.S.C. §§101, 102, 103 or 112. Rather, these changes were made simply for clarification and to round out the scope of protection to which Applicant is entitled.

In the event that additional cooperation in this case may be helpful to complete its prosecution, the Examiner is cordially invited to contact Applicant's representative at the telephone number written below.

The Commissioner is hereby authorized to charge any insufficient fees or credit any overpayment associated with the above-identified application to Deposit Account 50-0320.

Respectfully submitted,

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